

Design of Jet Jumps (Ejectors, by XXXXX  
S. A. Antonovich, 18 pp.

RUSSIAN, per, Energomashinostroy, No 9,  
1958, pp 8-13. 9678090

FTD-TT-62-449

Sci - Engr  
Sep 62

209,701

Measurement of the Intensity of Acoustic Radiation  
in Water Flow During the Cavitation, by L. S.  
Shmaglyakov. UNCL

RUSSIAN, per, Energiyash, No 9, 1958, pp 23-27.

DSIR LIU RTS 1002  
12s. 64.

601 - Phys  
May 59

87,894

Butterfly Valves for High Heads, by B. I. Yan'shin.  
USCL

RUSSIAN, per, Energomashinostroyeniye, No 11,  
1958, pp 20-24.

DSIR 113 RFB 1085

12s. 6d.

Sci - Engr  
Sep 59

95,843

The Soviet 3,000 H.P. Diesel Engine (D-100)  
Series for Naval Propulsion and Railway  
Traction; Rational Methods of Blowing the  
9-D-100, 3,000 H.P. Engine; Tests on the New  
3,000 H.P. Traction Diesel Engine (9-D-100), by  
A. S. Epshteyn, B. N. Strunge, 5 pp.

RUSSIAN, per, Ennergomash, Vol IV, No 11, 1958,  
pp 31-35, Vol V, No 1, 1959, pp 42-44. (abstracts).

SLA 60-13890

Sci  
Vol IV, No 8  
29 May 62

198,238

(2238-8)

Branch Conference on High-Temperature Materials, by  
L. Ya. Liberman, Ye. Ye. Levin, 10 pp.

RUSSIAN, per, Energiya i Stroyeniye, No. 11,  
Leningrad, 1978, pp 40-48.

JPRS 1908-8

USSR  
Econ  
Mar 59

82,976

The Effect of Flow Rotation and Angle of  
Attack on the Inlet Side of a Centrifugal  
Compressor Rotor, by S. P. Livshits. UNCL

RUSSIAN, per, Energiomash, No 12, 1958,  
pp 15-20.

DSIR LLU RTS 1219

(12s. 6d.)

Sci - Engr  
Feb 60

107,214

<p>Shubenko-Shubin, L. A. <b>MOVING BLADES IN THE LAST STAGES OF HIGH-POWER SOVIET TURBINES (Rabochie Lopatki Polednikh Stupeni Sovetskikh Mozhnykh Parovykh Turbin).</b> Feb 62 [20]p. RTS 2002. Order from OTS or SLA \$1.60      62-15838</p> <p>Trans. of Energomashinostroenie (USSR) 1959 [v. 5] no. 1, p. 3-8.</p> <p><b>DESCRIPTORS:</b> Steam turbine blades, Steam turbine rotors, *Steam turbines, Design, Stresses, Vibration, *Turbines.</p> <p>A short survey is presented of the work carried out at the S. M. Kirov Khar'kov Turbine Works on the design of rotor blades for the last stages of VKT-100 and PVK-150 turbines.</p> <p>(Machinery--Engines, TT, v. 7, no. 10)</p>	<p style="text-align: center;">62-15838</p> <p>I. Shubenko-Shubta, L. A. II. RTS-2002 III. Department of Scientific and Industrial Research (Gr. Brit.)</p> <p style="text-align: center;">Office of Technical Services</p>
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Method for the ~~the~~ Comparison of Bundles of Tubes  
With Wire Ribs, by A. P. Salikov, et al.

RUSSIAN, per, Energomashinostroyeniye, No 1,  
1959, pp 20, 21.

\*AEC

Sci - Engr  
Apr 62

Investigation of the Pressure and Stresses  
Acting on the Runner Blade of Hydraulic  
Turbines at the Narva Hydroelectric Power  
Station, by N. N. Kovalev, et al. UNCL

RUSSIAN, per, Energomash, No 1, 1959,  
pp 29-32.

DSIR LLU RTS 1113

10s. Cd. anywhere

99,454

Sci - Engr  
Oct 59

Investigation of the Temperature Distribution and  
Axial Clearances in Steam Turbines Under Operating  
Conditions, by N. M. Gorelkin.

RUSSIAN, per, ~~Energomashinoostroenie~~, No 2, 1959,  
pp 1-9.

Sci - Engr

Nov 59

~~SECRET~~  
Infocarch Ltd London  
re EM-59/2.1

On the Calculation of the Strenght of Volutes of  
Centrifugal Pumps, by M.A. Rudis.  
RUSSIAN, per. Energomashinostroenie, Vol 5, No 2, 1959. p  
p 4-12  
NLL/2301.91 1960 657

Sci -  
Aug 67

336,848

Methods of Increasing the Quality of Manufacture  
and Operation of Turbine Gear Reductors, by  
A. M. Korniyenko, 10 pp.

RUSSIAN, per, Energomashinostroy, Vol V, No 2,  
1958, pp 34-39.

9      5

ATS-12138R

Sci  
Scp 61

169, 129  
RJ-3321

On the Problem of the Design of High Speed  
Hydraulic Turbines, by T. A. Alexandrova,  
N. S. Chechel'.

RUSSIAN, per, Energomashinostroyeniye, Vol V,  
No 3, 1958, pp 13-17.

DSIR LIU RTS 1321

Sci - Engr

Oct 60

*128,733*

Notch Sensitivity During Creep, by I. I. Trunin.

~~EX~~ RUSSIAN, per, Energiemashinostroenie, Vol V,  
No 4, 1959, pp 21-26.

AEI T/1469

Sci  
Jun 63

The VKT-100 Khar'kov Turbine Plant, by  
A. V. Lazarenko.

RUSSIAN, per, Energomashinostroyeniye,  
Vol V, No 6, 1959, pp 1-7.

NLL Ref: 9022.03 1964 (3367)  
(loan copy)

Sci  
Sep 64

Thermal Resistance of Turbine-Blade Root Joints,  
by O. T. Il'chenko, V. M. Kapinos.  
RUSSIAN, per, Energiy Mashinostroyeniya, Vol V, No 6,  
1959, pp 23-26. 9694895  
DDC RSIC261

FTD-TT-65-680  
CFSTI - IT 64-71435  
Sci - Engr  
Oct 64

268,321

(NY-3065).

Conference on the Static Strength of Turbo-Machine  
Elements, by V. I. Rozenblyum/ 3 pp.

RUSSIAN, per, Energiomashinostroy, No 6, 1959, p 30.

JPRS-2153-N

Sci - Engr  
Jan 60

106,091

Effect of Degree of Reaction on Energy Losses  
in a Turbine Stage, by I. I. Kirillov,  
R. V. Kuzmichev.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,  
pp 1-7.

DSIR LLU M.1736  
(loan)

Sci - Engr

Oct 60

130,749

Investigation of Double-Crown Velocity Stages in  
Steam Turbines, by Yu. Ya. Kachuriner.

RUSSIAN, per, Energomashinoostroenia, Vol V, No 7,  
1959, pp 7-12.

DSIR LIU M.1886  
(loan)

Sci - Engr

128,900

Oct 60

Nozzle Efficiency in Diaphragms With Narrow  
Blades, by M. F. Fedorov, Yu. I. Pogorelov.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,  
pp 12-14.

DSIR LLI M.1830  
(loan)

Sci - Engr

Oct 60

130,748

A Method for Designing Turbine Blade Grids,  
by M. I. Zaukovakiy.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,  
pp 14-18.

DSIR LLU M.1794  
(loan)

Sci - Engr

Oct 60

130,747

The Theoretical Basis for the Selection of  
Permissible Surface Roughness in the Manufacture  
of Turbine Blades, by N. M. Markov.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,  
pp 18-22.

DSIR LRU M.1411

(loan)

OTS 60-17589

130,746

Sci - Engr

Oct 60

On the Leakage Through the Axial Clearance  
in a Turbine Stage, by A. M. Zavadovsky.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,  
pp 26, 27.

DSIR LLU M.1737  
(loan)

Sci - Engr

Oct 60

130,745

Improving the Profiles of Long Blades in Steam  
Turbines, by D. I. Marozov.

RUSSIAN, per, Energomashinostroenie, Vol V, No 7,  
1959, pp 28, 29.

DSIR LLU M.1735  
(loan)

Sci - Engr

Oct 60

128,901

The Effect of Starting Conditions on the Strength  
of Turbine Discs, by A. P. Dinerman.

RUSSIAN, per, Energomashinostroyeniye, Vol V, No 8,  
1959, pp 31-34.

DSIR LLU M.1973  
(loan)

8-1 - Engr

Oct 60

130,755

<p>Bordukov, V. T. THE USE OF TURBOCHARGERS WITH A VARIABLE-NOZZLE TURBINE IN DIESEL ENGINES (Primeneniye Turbokompressorov na Reguliruyemykh Turbinakh dlya Nadava Dvigateley). June 61 [11 p. 2 refs. RTS 1848. Order from OTS or SLA \$1.60      61-23069</p>	<p>61-23069</p> <p>I. Title: Turbocharging I. Bordukov, V. T. II. RTS-1848 III. Department of Scientific and Industrial Research (Gr. Brit.)</p>
<p>Trans. of <u>Energomashinostroyeniye</u> (USSR) 1959 (v. 5) no. 9, p. 6-8.</p>	<p>17535</p>
<p>DESCRIPTORS: *Diesel engines, *Turbines, *Turbochargers, *Gas turbine nozzles.</p>	<p>Office of Technical Services</p>
<p>An investigation of various types of turbochargers and of the operation of the engine with a variable-nozzle turbocharger leads to the following conclusions. In charging small engines the best results are obtained by using turbochargers with a radial centrifugal turbine because this unit has a high efficiency, the turbine wheels are cheap and easy to make (especially by using precision casting techniques), and because its speed (Machinery--Engines, TT, v. 6, no. 3)      (over)</p>	

<p>Kryukov, V. V. PRINCIPAL FACTORS DETERMINING THE EFFICIENCY OF TURBOCHARGING IN TWO-STROKE ENGINES (Osnovnye Usloviya Opredelyayushchie Effektivnost' Sistemy Gasoturbinogo Nadduva Dvukhtaktnogo Dvigatelya) July 61 [8]p. RTS 1849. Order from OTS or SLA \$1.10      61-23665</p>	<p>61-23665 I. Kryukov, V. V. II. RTS-1849 III. Department of Scientific and Industrial Research (R. Brk.)</p>
<p>Trans. of Energiyamašinoostroenie (USSR) 1959, v. 5, no. 9, p. 18-16.</p>	<p>176657</p>
<p>DESCRIPTORS: *Turbines, *Turbochargers, Effectiveness.</p>	<p>Office of Technical Services</p>
<p>The generalized efficiency of a gas turbocharging system is determined. Structural details are discussed and the method of evaluation based on the efficiency of the system supplying gas to the turbine is described. (Author)</p>	
<p>(Machinery--Engines, TT, v. 6, no. 6)</p>	

Investigation of the Blade Diffusers of  
Centrifugal-Compressor Machinery, by G. N. Den.  
RUSSIAN, per, Energomashinostroenie, No 10, 1959,  
pp 3-7.

AEC

Sci  
Mar 64

Results of an Experimental Investigation into  
Unstable Operating Conditions of Compressors,  
by V. N. Ershov.  
RUSSIAN, per, Energomashinostroenie, No 10, 1959,  
pp 8-10.

AEC

Sci  
Mar 64

Investigation of Steel Grades and the  
Manufacture of Welded Steel Shafts of  
Large Water Turbines, by A. S. Gel'man,  
I. R. Krynin, V. V. Lavando, et al, 12 pp.

RUSSIAN, per, Energomashinostroenie, No 12,  
1959, pp 33-37. 9099510

ONS 60-51134  
PL-480

*192,458*

Sci Engr

STEAM-GAS-TURBINE PLANT OF 175 - 200MW CAPACITY  
WITH HIGH PRESSURE STEAM GENERATORS, BY M. I.  
KORNEYEV, V. P. DROBOT.

RUSSIAN, PER, ENERGOMASH, VOL VI, NO 1, 1960,  
PP 17-21.

NLL M. 6333

SCI - ENGR

NOV 62

217,687

Selection of Optimal Unit Capacities for Large  
Tandem-Compound Steam Turbines, by A. V. Levin.

RUSSIAN, per, Energomash, Vol VI, No 1, 1960,  
pp 26-32.

DSIR LIJ M.2017  
(loan)

Sci - Engr

Oct 60

130,744

<p>Zver'kov, B. V.        CREEP OF TUBES UNDER COMPLEX LOADS. [1960]        Sp. M1890.        Order from LC or SLA m\$1.80, pt\$1.80 61-13210</p> <p>Trans. of Energoostroystroyeni (USSR) 1960, v. 6        [no. 1] p.[33]-35.</p>	<p>61-13210</p> <p>1. Steel tubing--Creep        2. Steam pipes--Creep        I. Zver'kov, B. V.        II. DSR LLZ M.1890</p>
<p>142,892</p>	
<p>(Engineering--Mechanical, TT, v. 5, no. 2)</p>	<p>Office of Technical Services</p>

**Certain Results of Experimental Research Concerning  
Moisture-Catching Machinery in Steam Turbines, by  
A. N. Astaf'yev, 6 pp.  
RUSSIAN, per, Energomashinostroyeniye, Vol VI, No 2,  
1960.**

**Navy Tr 3720/BuShips 838**

**Sci - Engr  
Mar 64**

**250,952**

A STUDY OF THE LOCAL HEAT TRANSFER OF A GAS-  
TURBINE PROFILE, BY G. S. AMBROK, 9 PP.

RUSSIAN, PER, ENERGOMASHINOSTROY, NO 2, 1960,  
PP 29-31. 9665939

FTD-TT-62-454

SCI - ENGR  
AUG 62

207,961

(NY-2900/10)

The Technical Progress of Hydroturbine Building at  
the Leningrad Metal Plant in 1959-1965, by G. S.  
Shchegolev, 7 pp.

RUSSIAN, per, Energomashinostroeniye, No 3, 1960,  
pp 1-4.

JPRS 5032

USSR

Econ - Technological

121,536

Aug 60

**Computation of Natural Frequencies of Vibrations of Francis Turbine Runners, by A. Ya. Aronson, 15 pp.**

**RUSSIAN, per, Energomashinostroyeniye, No 3, 1960, pp 8-12.  
CFSTI TT 67-59018**

**Sci-Energy Conversion  
Oct 68**

**366,119**

Kostovetaki, D. L.  
EFFECT OF ORIGINAL ELLIPTICITY OF A SECTION ON THE FLEXURE OF A CURVED THIN-WALLED PIPE (Yanil Nachal'noi Elliptichnosti Secheniya na Izgib Narivoi Tonkostennoi Truby). [1961] [14 p. (foreign text included) 2 refs. [DSIR LLU] M 2604.

Order from OTS or SLA \$1.60

61-23274

Trans. of Energomashinostroenie (USSR) 1960, v. 6, no. 3, p. 23-27.

DESCRIPTORS: \*Pipes, Deformation, Stresses, Moments, Pressure.

Approximate formulae are derived for the determination of stresses in a curvilinear segment of a thin-walled pipe of slightly elliptical section, in the case of the simultaneous operation of bending moments and internal pressure. The adduced results of the calculation of two pipes demonstrate the substantial effect of the original ellipticity of the section.

61-23274

I. Kostovetaki, D. L.  
II. DSIR LLU M.2604

177711

Office of Technical Services

(Mechanics, TT, v. 6, no. 4)

<p>Sheval'skiy, R. and Vechorek, B. NEW DESIGN OF LOW PRESSURE DIAPHRAGMS FOR STEAM TURBINES. [1960] [10]p. 8 refs. [DSIR LLU] M. 2324. Order from LC or SLA m\$1.80, ph\$1.80    61-15465</p> <p>Trans. of Energomashinostroyeniye [USSR] 1960 [v. 6] Mar. p. 32-35.</p> <p>A description is given of a new design for a blade of sheath type for low pressure diaphragms of high power steam turbines. The blade is joined to the body of the diaphragm either by welding or filling the cavity with the same material used for the body of the diaphragm. A short description is presented of preliminary efforts to devise a simple, reliable and economic production technique. (Author)</p> <p>(Engineering--Mechanical, TT, v. 5, no. 12)</p>	<p>61-15465</p> <ol style="list-style-type: none"><li>1. Steam turbines--Design</li><li>2. Diaphragms (Mechanics)--Design</li></ol> <ol style="list-style-type: none"><li>I. Sheval'skiy, R.</li><li>II. Vechorek, B.</li><li>III. DSIR LLU M. 2324</li></ol> <p style="text-align: center;">100610</p> <p style="text-align: center;">Office of Technical Services</p>
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Investigating the Temperature Field of a  
Cooled Steam Turbine Rotor, by Ye. I. Bublikov,  
V. M. Kapinos, 15 pp.

RUSSIAN, per, Energomashinostroy, No 4, 1960,  
pp 8-12. 9670229

AFID WGL-937/1

Sci - Engr

Jul 61

160,783

Investigation of Active Stages With Partial  
Admission of the Working Medium, by T. K.  
Terentyev.

RUSSIAN, per, Energomashin, Vol VI, No 4, 1960,  
pp 15-17.

NLL M. 2603

Sci - Phys

180,047

Jan 62

Pump Vibration Caused by Cavitation,  
by G. A. Khoroshev, 15 pp.

RUSSIAN, per, Energomashinostroyeniye, No 4,  
1960, pp 26-30. 9676145

FID-EE-61-179

Sci - Engr

5 Apr 62

189, 771

A Diffuser With Transverse Ribbing, by  
V. K. Migai.  
RUSSIAN, per, Energomashinostroyeniye,  
No 4, 1960, p 31.  
NLL Ref: 5828.4 1964 (10,450) (loan copy)

Sci  
Aug 64

Markov, N. M. and Dobrokheto, V. D.  
THE RESULTS OF THE INVESTIGATION OF VE-  
LOCITY STAGES. [1961] 12p. [DSR L1J1] M.2702.  
Order from OIS or SLA \$1.60 61-23535

Trans. of Energetists [mostroyeniye] (USSR) 1960  
[v. 6] no. 5, p. 21-23.

DESCRIPTORS: \*Turbines, Turbine blades, Tests,  
Velocity.

Experiments at the Central Research Institute for  
Boilers and Turbines showed that the velocity stages  
with two rows of working blades are very economical.  
With a 20-mm nozzle height and with radial seals pres-  
ent the efficiencies of the two stages are 79% or better.  
The effect of the first stage, having a degree of re-  
action across the first row of moving blades of almost  
zero, depends very little on the state of the radial  
seals.

(Engineering-Mechanical, TT, v. 6, no. 0)

61-23535

I. Markov, N. M.  
II. Dobrokheto, V. D.  
III. DSR L1J1 M.2702

177721

Office of Technical Services

Troyanovskiy, B. M., Kiselev, L. Ye., and  
Filippova, V. G.  
METHOD FOR CALCULATION OF DOUBLE-ROW  
VELOCITY STAGES, tr. by J. K. Swirzyński. [1961]  
[19]p. 8 refs. [DSIR LLU] M 2701.  
Order from OTS or SLA \$1.60      61-23534

Trans. of Energiomashinostroyeniye (USSR) 1960, v. 6,  
no. 5, p. 1-6.

DESCRIPTORS: \*Steam turbines, Velocity.

Graphs and formulae are presented for determining the  
efficiency of a double-row velocity stage with complete  
and with partial steam admission in a wide range of  
geometric and physical parameters. The method was  
developed for application to the velocity stage of the  
Moscow Institute for Power Engineering and is used  
with a combination of blade grids (patterns) KS-1A and  
KS-1B. (Translator)

(Engineering--Mechanical, TT, v. 6, no. 3)

61-23534

1. Title: Double-row velocity stages
2. Title: Turbine staging
- I. Troyanovskiy, B. M.
- II. Kiselev, L. Ye.
- III. Filippova, V. G.
- IV. DSIR LLU M.2701

175382

Office of Technical Services

An Instrument for Measuring ~~the~~ Torque, Speed  
and Power on High-Speed Turbines, by M. Ye.  
Deych, A. Ye. Zaryankin,

RUSSIAN, per, Energomashinostroyeniye, No 5,  
1960, pp 43-47.

\*FTD-TT-61-443

Sci - Engr

Dec 61

Heat Exchange During Bubble Boiling, by  
P. P. Minchenko, 13 pp.

RUSSIAN, per, Energomash, No 6, 1960,  
pp 17-21. 067202

FTD-TT-61-153

Sci - Phys

180.314

24 Jan 62

A Study of Nitrided 15Kh 11 MF and 15Kh 12VMF Steels  
After Prolonged Holding at 570°C, by A. V.  
Kostenko, et al.

RUSSIAN, per, Energomashinostroyeniye, No 6, 1960,  
pp 33-36.

DBIR RTS 1788

Sci

Aug 61

163,158

<p>Levin, A. V.  <b>COMPUTATION OF THE FREQUENCIES OF CHARACTERISTIC VIBRATIONS OF BLADED DISKS WITH NATURALLY TWISTED BLADES (Vychislenie Chaoticheskikh Kolebaniy Obobshchennykh Diskov s Estestvenno Zakruchennymi Lopatkami) tr. by G. J. Tee [1961] [14 p. (foreign text included) 2 refs. [DSIR LLU] M. 2700.</b>          Order from OTS or SLA \$1.60                      61-23533</p>	<p style="text-align: center;">61-23533</p> <p>I. Levin, A. V.          II. DSIR LLU M. 2700</p> <p style="text-align: center; font-size: 2em;">177720</p> <p style="text-align: center;">Office of Technical Services</p> <p style="text-align: center;">(Mechanics, TT, v. 6, no. 4)</p> <p style="text-align: center;">ALL REF 9022.03 1963 (3294) (LOAN)</p>
<p>Trans. of <u>Energomashinostroenie (USSR) 1960, v. 6, no. 7, p. 1-5.</u></p>	
<p>DESCRIPTORS: *Disks, Vibration, Frequency, Mathematical analysis.</p>	
<p>A method is presented for computing the frequencies of characteristic vibrations of bladed disks with naturally twisted blades. The consideration of the twisting of the blades noticeably reduces the frequency of vibrations of disks, and gives values for the frequencies close to the experimental values.</p>	

Turbine-Rotor Flexion in Passing Through  
the First Critical Speed, by M. I.  
Lappa.

RUSSIAN, per, Energomashin, Vol VI,  
No 7, 1960, pp 9-12.

NLL M.4009

Sci - Engr

Feb 62

186,578

(NY 2900/30).

A Compressor of the Nevskiy Machine Building Plant  
imeni Lenin, by O. M. Kiselev, 1 p.

RUSSIAN, per, Energomash, July 1960, p 18.

\*JPRS 7764

USSR

Econ - Technological - Machine Building

27 Sep 60

<p>Zavadovskii, A. M., Babenko, Kh. L., and Agafonov, V. A. FORMING THE STAGES OF TURBINE BY MACHIN- ING THE BLADES OF THE ORIGINAL STAGE, [1961] [8]p. 1 ref. C. E. Trans. 1969; [DSIR LLU] M. 4016. Order from OTS or SLA \$1.10                      61-28188</p>	<p>61-28188</p> <p>I. Zavadovskii, A. M. II. Babenko, Kh. L. III. Agafonov, V. A. IV. CE Trans-1969 V. DSIR LLU M. 4016 VI. Central Electricity     Generating Board     (Ct. Brit.)</p>
<p>Trans. of <u>Energomashinostroenie</u> (USSR) 1960, v. 6, no. 7, p. 19-21.</p>	<p>128780</p>
<p>DESCRIPTORS: *Turbine blades, Machining, Aero- dynamics, Turbines, Operation, Design</p>	<p>Office of Technical Services</p>
<p>Aerodynamic properties are derived for a series of stages formed by machining the blades of the original stages. (Author)</p>	
<p>(Machinery--Engines, TT, v. 6, no. 11)</p>	

(NY-2900/30)

Scientific and Technical Conference on the  
Exchange of Know-How in Starting and Adjusting  
Gas Turbine, by Yu. P. Orachev, 6 pp.

RUSSIAN, per, Energomash, No 7, 1960, pp 27, 28.

JPRS 7764

Sci - Engr

Mar 61

142,092

Verbin, D. S. and Sheplevskiy, V. M.  
AUTOMATIC CARBON-DIOXIDE-SHIELDED ARC  
WELDING OF STEAM TURBINE DIAPHRAGMS AT  
THE LENINGRAD ENGINEERING WORKS (Avtomati-  
chestaya Svarka Diafragn Parovykh Turbin v Srede  
Uglerodistogo Gaza na LMZ). Mar 61 [11 p. RTS 1789.  
Order from LC or SLA ml\$1.80, ph\$1.80    61-19222

Trans. of Energomashinostrroyeniye (USSR) 1960 [v. 6]  
no. 7, p. 29-31.

The short experience with the automatic welding of  
steam turbine diaphragms with a carbon-dioxide-  
shielded metal arc shows that this method is an effec-  
tive means of increasing the productivity of labour and  
for improving the quality of production, which in the  
near future will completely replace the manual welding  
of these components at the Leningrad Works. (Author)

(Machinery--Manufacturing. TT, v. 5, no. 12)

61-19222

1. Arc welding--USSR
2. Steam turbines--Equipment
3. Diaphragms (Mechanics)--  
Welding

- I. Verbin, D. S.
- II. Sheplevskiy, V. M.
- III. RTS-1789

- IV. Department of Scientific  
and Industrial Research  
(Gr. Brit.)

160950

DSIR M 3091

Office of Technical Services

KOSYAK, Yu. P. and Savukov, V. P.  
COMBATING EROSION IN THE LATER STAGES OF  
LARGE TURBINES. [1961] 9 p. 6 refs. C.E.  
Trans. 1856; [DSIR LLI] M. 4013.  
Order from OTS or SLA \$1.10      61-28186

Trans. of *Energomashinostroenie* (USSR) 1960, v. 6,  
no. 7, p. 35-38.

DESCRIPTORS: \*Turbines, Operation, Maintenance.  
\*Turbine blades. Erosion, Countermeasures.

Results of studying the erosion of turbine blades in  
the later stages of the VKT-100 type turbines at the  
Kharkovskii turbine plant obtained from examination  
of turbines after one full year's service are given.  
Erosion seems to be a function of the energy loss of  
the rotor under the impact of the comparatively slow  
moving drops of moisture. By studying the moisture  
distribution of the blade length and comparing the

61-28186

- I. Kosyak, Yu. P.
- II. Savukov, V. P.
- III. CE Trans-1856
- IV. DSIR LLI M. 4013
- V. Central Electricity  
Generating Board  
(Gr. Brit.)

182141

Office of Technical Services

Mikhailov, O. N.  
CALCULATION OF THE NATURAL FREQUENCIES  
OF VIBRATION OF ARRAYS OF STEAM-TURBINE  
BLADING (K Raschetu Chastot Sobstvennykh Kolebani  
Paketov Lopatok Parovykh Turbin). July 61 [10].  
5 refs. RTS 1969.  
Order from OTS or SLA \$1.10      61-27300

Trans. of Energomashinostroenie (USSR) 1960 [v. 6]  
no. 8, p. 22-26.

DESCRIPTORS: \*Steam turbine blades, Vibration,  
Mathematical analysis, Turbine blades.

A new method is proposed for calculating the natural  
frequencies of vibration of 1st and 2nd modes for  
arrays of steam turbine blading. Compared with the  
existing method of calculation with the same number of  
integration portions, calculation with the same number  
(Machinery--Engines, TT, v. 6, no. 10)      (over)

61-27300

I. Mikhailov, O. N.  
II. RTS-1869  
III. Department of Scientific and  
Industrial Research  
(Ct. Brk.)

9676283 -  
FTD-TT-61-445

7351

Office of Technical Services

The Compressibility of Motor Fuels, by  
I. V. Astakhov, 16 pp.

RUSSIAN, per, Energo-Mashinostroyeniye, No 9,  
1960, pp 8-11. 9653462

FTD MCL-1288/1

Sci - Fuels, Engr

171,845

25 Oct 61

CALCULATING LOAD DISTRIBUTION AMONGST TEETH  
OF THE HERRINGBONE FASTENING OF MOVING  
TURBINE BLADES, WITH ELASTIC DEFORMATION.

RUSSIAN, PER, ENERGMASHINOSTROENIE,  
VOL VI, 1960, PP 29-32.

*7c 10*

*NLL M.4659*

SCI - EENGR

*CTS 62-15719*

JUN 62

*199,111*

INVESTIGATION OF A TWO CHAMBER CYCLONE FURNACE WITH  
INTERSECTING JETS, BY A. P. KOVALEV, A. S.  
IPPOLITOV.

RUSSIAN, PER, ENERGOMASH, VOL VI, NO 11, 1960,  
PP 16-19.

NLL M. 6014

SCI - ENGR  
OCT 62

214,706

<p>Vidyakin, Yu. A. DETERMINATION OF THE DAMPING CAPACITIES OF HIGH-FREQUENCY BLADES AND BLADE ASSEMBLIES OF STEAM TURBINES. [1961] [5] p. 4 refs. C. E. Trans. 2105; [DSIR] NLL M. 4661. Order from OTS or SLA \$1.10      62-15715</p> <p>Trans. of Energomashinostroenie (USSR) 1960, v. 6, no. 11, p. 24-25.</p> <p>DESCRIPTORS: *Steam turbine blades, *Damping, Vibration, Stainless steel, Thermal stresses.</p> <p>A statement of experimental data on the effect of the frequency of blade vibration on damping. A conclusion is drawn as to the possibility of estimating the damping of high-frequency blades and their assemblies from the results of testing low-frequency specimens. (Author) (Machinery--Engines, TT, v. 7, no. 11)</p>	<p>62-15715</p> <p>I. Vidyakin, Yu. A. II. CE Trans-2105 III. DSIR NLL M. 4661 IV. Central Electricity Generating Board (Gr. Brit.)</p> <p>Office of Technical Services</p>
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The Test Rig for the Experimental EPT-2  
KhTGZ Kirov Turbine, by I. A. Lavrov.

RUSSIAN, per, Energomashinostroyeniye,  
Vol VI, No 11, 1960, pp 25-27, 31.

NLL Ref: 9022.03 1964 (3368)  
(loan copy)

S&I  
Sep 64

Methods of Controlling the Tightening of Large  
Bolts on Turbines, by A. U. Bagov,  
N. I. Gal'perin.

RUSSIAN, per, Energomash, Vol VI, No 11, 1960,  
pp 28-29.

NEL M. ~~TEXT~~ 3549

Sci - Engr  
Jun 62

201,025

NEL M. 9022,03 1964 (03267) (copy)

Some Results of Stress to Rupture Investigations  
Under Conditions of Variable Stress and  
Temperature, by M. P. Rozanov, E. I. Rusanova.

RUSSIAN, per, Energomsh, Vol VI, Nov 1960,  
pp 36-39.

NISI 2066

Sci - Engr

*196, 220*

May 62

list 133

Calculation of Leakage Through Gas Turbine  
Labyrinth Glands, by E. T. Bartosh.

RUSSIAN, per, Energomash, Vol VI, No 12, 1960,  
pp 22-25.

NLL M. 3328

Sci - Engr

Apr 62

192,324

(DC-5884)

Session on Convective Heat Exchange, by V. M.  
Borishanskiy, 8 pp.

RUSSIAN, per, Energomashinostroeniye, No 12, 1960,  
pp 43-45.

JPRS 8579

Sci - Engr, Phys

Jul 61

160,410

Experience in the Study and Perfection of  
Nozzles for Axial Turbine-Type Machines,  
by R. E. N. Bogomazov, L. A. Dorfman, 15 pp.

RUSSIAN, per, Ennergomash, No 1, 1961, pp 8-12.  
9676266

FTD-TT-61-410

Sci - Engr

192,673

Apr 62

Comparative Data for Values of Experimental  
Heat Transfer Coefficients, by G. V. Nikolayev.

RUSSIAN, per, Energomash, Vol VII, No 1, 1961,  
pp 15-18.

MLL N. 3541

Sci - Chem  
Jun 62

201,020

Investigation of Heat Transfer and Aerodynamic  
Resistance in a Semi-industrial Model of an  
Air Heater Constructed of Profile Sheets,  
by E. I. Vol'per, et al.

RUSSIAN, per, Energomashinostroeniye, 1961,  
no 1, pp 22-25.

MLL RFS 2482 (On Loan or Purchase)

Aug65

288,110

The Temperature Distribution in a Partially Cooled  
Root of a Turbine Blade, by B. A. Arkad'yev, 11 pp.

RUSSIAN, per, Energomash, No 1, 1961, pp 38-40.  
9676206

IT-  
FTD/61-410

Sci - Engr

192, 675

Apr 62

Factory Rig Tests of Axial Compressors at the  
Leningrad Machine Works, by F. S. Bedcher,  
V. Y. N. Reznichenko.

n

RUSSIAN, per, Energomash, Vol VII, No 2,  
1961, pp 1-5.

MLL M. 3547

Sci - Engr  
Jun 62

201, 022

Comparative Investigations on Heat Transfer  
and Pressure Drop of Finned Surfaces, by V. M.  
Antuf'yev.

RUSSIAN, per, Energomashinostroenie, Vol VII,  
No 2, 1961, pp 12-16.

NIL M. 3429

Sci - Engr

Apr 62

*cc K. Ustov...  
193, 909*

An Investigation of the Rotor Temperature of  
a GT-600-1.5 Gas Turbine Under Operating  
Conditions, by M. M. Ivashchenko, 12 pp.

RUSSIAN, per, Energomashinostroyeniye, No 2,  
1961, pp 17-21. 9677209

FED-ET-61-411

Sci - Engr

18 Jun 62

201.163

Investigation of Double Row Curtis Stages With  
Partial Admission of Steam, by M. Ye. Deich,  
Et al.

RUSSIAN, per, Energomash, Vol VII, No 3, 1961,  
pp 24-27.

ML M. 3551

Sci - Engr  
Jun 62

201,034

<p>Stanyukovich, A. V. and Levin, E. E. CAUSES OF FAILURE OF STEAM SUPERHEATER PIPES MADE FROM 18Cr/12Ni/Ti STEEL Z. Jankowski, tr. 1963 [10p] 2refs TRG Information Series 191 (R). Order from OTS, SLA, or ETC \$1.10    TT-64-13805</p>	<p>TT-64-13805</p> <ol style="list-style-type: none"><li>I. Stanyukovich, A. V.</li><li>II. Levin, E. E.</li><li>III. TRG-IS-191 (R)</li><li>IV. United Kingdom Atomic Energy Authority, Ridley (England)</li></ol>
<p>Trans. of <del>Engineering</del> <u>Engineering</u> (USSR) 1961 [v. 7] no. 10, p. 27-30.</p>	
<p>NLL/9091.9 1963 TRG15191</p>	
<p>(Metallurgy--Structural, TT, v. 12, no. 2)</p>	<p>Office of Technical Services</p>

(NY-3000/2)

Profile-Grinding Machines for Machining Turbine  
Blades of Varying Profile, by V. A. Dolgov, M. L.  
Bakhter, A. V. Tsvetkov, 5 pp.

RUSSIAN, per, Energo-Mash, No 3, 1961, pp 32-34.

JPRS 9523

USSR

Econ

Aug 61

162,290

**Increasing the Erosion Strength of Steel for  
Steam-Turbine Blades by Spark-Hardening, by  
M. G. Timerbulatov, V. P. Savukov.**

**RUSSIAN, per, Energomash, Vol VII, Apr 1961,  
pp 32-34, 40.**

*NLL 11.5577*  
**NDI 2316**

**Sci - Min/Metals**

*168, 477*

**Sep 61**

**List 108**

Basic Trends in Piston Construction for Heavy  
Duty High Speed Diesels, by S. N. Doroshenko,  
V. V. Kotlyarov.

RUSSIAN, per, Energomash, Vol VII, No 4, 1961,  
pp 42-44.

MLL M. 3576

201 - 5147

201 - 62

201, 560

The PVK-150 Steam Turbine Produced by the  
Kz Khar'kov Turbo-Generator Factory, by  
L. A. Shubenko-Shubin, A. V. Lazarenko.

RUSSIAN, per, Energomashinostroyeniye, Vol VII,  
No 6, 1961, pp 1-7.

NLL Ref. 9022.03 1963 (3,295)  
(Loan)

Sci - Engr  
Nov 63

2FSTI TT 63-23933

Gas Turbine Installation GT-700-5, by  
L. A. Kuznetsov.

RUSSIAN, per, Energomash, Vol VII, No 6, 1961,  
pp 1-6.

NLL M. 3542

Sci - Engr  
Jun 62

201,023

The PVK-150 Steam Turbine Produced by the  
KX Khar'kov Turbo-Generator Factory, by  
L. A. Shubenko-Shubin, A. V. Lazarenko.

RUSSIAN, per, Energomashinostroyeniye, Vol VII,  
No 6, 1961, pp 1-7.

NLL Ref. 9022.03 1963 (3,295)  
(Loan)

Sci - Engr  
Nov 63

242,342

The Characteristics of Turbine Stages With Different  
Deflection Angles of the Guide Blades, by  
I. I. Kirillov, R. M. Yablonik.

RUSSIAN, per, *Energomashinostroyeniye*, Vol VII,  
No 6, 1961, pp 7-11.

NLL Ref: 9022.03 1963 (3296) (Loan)

Sci  
Feb 64

Testing Methods for Sintered Products, 2 pp.

RUSSIAN, per, Energomash, No 6, 1961, pp 42-44.

CIA/FDD XX-1037  
NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Engr.

Aug 61

USIB INTERNAL USE ONLY

The Influence of a Convergent Transition Piece  
Downstream of a Flat-Walled Butterfly Valve on the  
Valve Characteristic, by B. I. Yanshin.

RUSSIAN, per, Energomashinostroenie, Vol VII, No 7,  
1961, pp 16-19.

NIL M 283 3992

Sci - Engr  
Apr 63

226967

Effect of the Moisture Content of Steam on the  
Performance of a Turbine Stage, by Yu. Ya.  
Kachurinov, I. P. Paddoyev.

RUSSIAN, per, Energomash, Vol VII, No 8, 1961,  
pp 5-8.

NIL N. 3536

Sci - Engr  
Jun 62

201,035

THE EFFECT OF THERMOPHORESIS ON THE PROCESS OF PRE-  
CIPITATION OF ASH PARTICLES ON COOLED BLADES OF GAS  
TURBINES, BY S. SH. ROZENBERG, 14 PP.

RUSSIAN, PER, ENERGMASHINOSTROYENIYE, NO 8, 1961,  
PP 42-45. 9678391

FTD-TT-62-1025

SCI - ENGR  
L1 OCT 62

212,328

(SP-1878)

Specialized Conference on Diesel  
Construction, by L. K. Kollerov, 5 pp.

RUSSIAN, per, Energomashinostroyeniye,  
No 8, 1961, p 47.

JPRS 13033

*Ji - Misc*  
*mar 02*

*189.484*

(N SF-1677)

Soviet Power Machine-Building Prior to  
the 22nd Congress of the CPSU, 9 pp.

RUSSIAN, per, Energo-Mashinostroyeniye,  
No 10, 1961, pp 1-4.

JPRS 13533

191,666

USSR  
Econ  
Apr 62

Investigation of Air-Stream Cooling of Gas Turbine  
Disks, by L. A. Dorfman, Yu. E. Gaharov, 13 pp.

RUSSIAN, per, Energi Mashinostroyeniya, No 10,  
1961, pp 23-26. 9679270

FID-TI-62-1023

Sci-ENGINENGR  
Dec 62

219,363

Causes of Failure of Steam Super-heater  
Pipes Made From 18Cr/12Ni/1Ti Steel,  
by A. V. Stanyukovich.  
RUSSIAN, per, Energomashinostroenie,  
No 10, 1961, pp 27-30.  
NLL/9091.9 1963 TRGIS 191

Sci -  
Jul 67

334,311

Tsukerman, R. V. and Nazarenko, S. S.  
COST INDICES IN THE MANUFACTURE OF LARGE  
STEAM BOILERS. [1963] [10p] 2refs C.E.  
Trans. 2734.  
Order from OTS or SLA \$1.10 63-23974

Trans. of ~~Energo~~ ~~magazine~~ ~~USSR~~ (USSR) 1961 (v. 7)  
no. 10, p. 33-36.

DESCRIPTORS: \*Boilers, Steam, Costs,

Two statistical methods are described for calculating the manufacturing costs of projected boilers. One method is based on the functional relation between cost price and the materials component. This method requires a drawing or technical project which permits an approximate calculation of the material required from which the theoretical cost price can be calculated. The second method is based on determining the relation between manufacturing costs and the power and steam (Engineering--Mechanical, TT, v. 10, no. 12) (over)

63-23974

I. Tsukerman, R. V.  
II. Nazarenko, S. S.  
III. CE Trans-2734  
IV. Central Electricity  
Generating Board  
(G. Brit.)

NLL (LOAN) REF:  
9022.09 146 (2, 734)

Office of Technical Services

Experimental High-Temperature Gas Turbines OGT-850  
of the Central Scientific Research Institute  
for Boilers and Turbines, by I. N. Yefimov, 1 pp.

RUSSIAN, per, Energiomashinostrroyeniya, No 10,  
1961, pp ~~48~~ 9679270  
48

FTD-FF-62-1023

Sci-Engr  
Dec 62

219,564

Calculating the Diaphragm as a Half-Ring on  
an Elastic Supporting Contour, by  
V. L. Ingul'tsov.

RUSSIAN, per. Energomashinostroyeniye, Vol VII,  
No 11, 1961, pp 1-5.

NII Ref: 9022 03 1963 (3297) (Loan)

Sci - Engr  
Feb 64

248,590

Alzabtat, I. I.  
DYNAMIC PROPERTIES OF THE FEED CONTROL  
SYSTEM OF ONCE-THROUGH BOILERS WITH RE-  
SPECT TO THE "HEAT-WATER" CYCLE. [1963]  
[12p] Srefs C. E. Trans. 2610.  
Order from OTS or SLA \$1.60

63-24078

Trans. of Energi Mashinostroenie (USSR) 1961, v. 7,  
no. 11, p. 3-9.

DESCRIPTORS: \*Boilers, \*Feed water, Control  
systems, Pressure, Steam, Damping, Dynamics.

Factors are considered which determine the stability  
of the feed control system of a once-through boiler with  
respect to the "heat-water" ratio. A method of increas-  
ing the damping of the system is developed based on  
introducing an additional impulse into the feed regulator  
to denote the temperature of the medium at one or more  
points in the steam delivery line preceding the first  
desuperheater. (Author)

63-24078

I. Alzabtat, I. I.  
II. CE Trans-2610  
III. Central Electricity  
Generating Board  
(Gt. Brit.)

(Engineering--Mechanical, TT.  
v. 10, no. 12)

Office of Technical Services

Technical Projects for New Turbines to be  
Produced by the Khar'kov Turbo-generator  
Plant, by B. M. Panshin.

RUSSIAN, per, Energomashinostroeny, Vol VII,  
No 11, 1961, p 26...

NLL Ref: 9022.03 1963 (3298) (Loan)

Sci = Engr  
Feb 64

248,591